

CLAIMS

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1. A multilayer film comprising a base material, a polymer resin layer and a metal deposited layer and/or a metal oxide deposited layer provided on the base material, wherein said polymer resin layer contains a polymer produced by polymerization of an unsaturated compound having two or more ethylenic bonds and/or acetylenic bonds in one molecule and having neither acrylic group nor methacrylic group, in an amount of 80 % by weight or more based on said polymer resin layer.
 2. A multilayer film according to claim 1, in which the polymer resin layer, the metal deposited layer and/or the metal oxide deposited layer are provided on the base material in this order.
 3. A multilayer film according to claim 1, in which the metal deposited layer and/or the metal oxide deposited layer and the polymer resin layer are provided on the base material in this order.
 4. A multilayer film according to claim 1, in which the thickness of the polymer resin layer is not less than 0.02 μm and not more than 1 μm .
 5. A multilayer film according to claim 4, in which the thickness of the polymer resin layer is not less than 0.05 μm and not more than 0.5 μm .

6. A multilayer film according to claim 1, in which the unsaturated compound is one or more compounds selected from an unsaturated fatty acid, an unsaturated fatty ester, and a terpene having an unsaturated bond.

7. A multilayer film according to claim 6, in which the unsaturated fatty acid, unsaturated fatty ester, and terpene having an unsaturated bond are compounds isolated from natural substances.

8. A multilayer film according to claim 7, in which the unsaturated fatty acid, unsaturated fatty ester, and terpene having an unsaturated bond are compounds selected from a drying oil, a semi-drying oil, or a hydrolysate thereof, or a part of the component thereof, or a combination thereof.

9. A multilayer film according to claim 8, in which the drying oil or the semi-drying oil is a compound having an iodine value of not less than 100.

10. A multilayer film according to claim 6, in which the unsaturated fatty acid, unsaturated fatty ester, and terpene having an unsaturated bond are one or more compounds selected from castor oil, coconut oil, soybean oil, linseed oil, palm kernel oil, safflower oil, china wood oil, tall oil, oleic acid, linolic acid, linolenic acid, ricinoleic acid, eleostearic acid, triglyceride linoleate, triglyceride linolenate, citral, citronellal, citronellol, nerolidol, geraniol, miltan, linalool, and limonene.

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11. A multilayer film according to claim 1, which is used for a metallized packaging film or a metallized film for a capacitor.

12. A process for producing a multilayer film in which a polymer resin layer and a metal deposited layer and/or a metal oxide deposited layer are deposited on a base material in a vacuum deposition apparatus, wherein an unsaturated compound having two or more ethylenic bonds and/or acetylenic bonds in one molecule and having neither acrylic group nor methacrylic group, is deposited, then the unsaturated compound is irradiated with energy rays to form said polymer resin layer.

13. A process for producing a multilayer film according to claim 12, in which the metal and/or the metal oxide is deposited on the base material then said unsaturated compound is deposited on said metal deposited layer and/or metal oxide deposited layer and said unsaturated compound is irradiated with energy rays to form the polymer resin layer.

14. A process for producing a multilayer film according to claim 12, in which said unsaturated compound is deposited on the base material, and said unsaturated compound is irradiated with energy rays to form the polymer resin layer, then the metal and/or metal oxide is deposited on said polymer resin layer.

15. A process for producing a multilayer film according to

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claim 12, in which the surface of the base material is previously subjected to plasma treatment.

16. A process for producing a multilayer film according to claim 12, in which the energy rays are one or more kinds of energy rays selected from a group consisting of ultraviolet rays, ions, excited atoms, and excited molecules.

17. A process for producing a multilayer film according to claim 12, in which the energy rays are a plasma of a gas containing oxygen atoms.

18. A process for producing a multilayer film according to claim 12, in which the deposition of the unsaturated compound is such that the unsaturated compound is atomized and allowed to impinge upon a heated wall of an apparatus thereby evaporated and deposited on the base material or the metal and/or metal oxide deposited layer.

19. A process for producing a multilayer film according to claim 18, in which the unsaturated compound is atomized by applying an electric voltage to the unsaturated compound.

20. A process for producing a multilayer film according to claim 18, in which the unsaturated compound is atomized and allowed to impinge upon a wall of a heated apparatus thereby evaporated and deposited on the base material or the metal and/or metal oxide deposited layer through an aperture of said heated apparatus, wherein the unsaturated compound is deposited while an electric voltage is applied between the

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~~aperture of said heated apparatus and the metal deposited layer and/or metal oxide deposited layer.~~

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